**Recommended Readings from *Latent Variable Analysis in R Made Easy***

**For EFA**

Sakaluk, J. K., & Short, S. D. (2016). A methodological review of exploratory factor analysis in sex research: Used practices, best practices, and data analysis resources. *Journal of Sex Research*.

* An accessible review of various options for estimation, rotation, and retention, which are best, how often they are followed in sex research, and scripts (Mplus, R, SAS, SPSS) and spreadsheets to conduct EFA in a way that follows them

Fabrigar, L. F., & Wegener, D. T. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, *4*, 272-299.

* A now classic review (cited ~5000 times) of how rarely best practices for factor analysis are followed in psychology research. Well worth reading, and citing.

Fabrigar, L. F., & Wegener, D. T. (2011). *Exploratory factor analysis*. New York, NY: Oxford University Press.

* Following the success of their methodological review (above), Fabrigar and Wegener wrote a short-and-sweet book on conducting factor analysis. A rare resource that is both short, comprehensive *and* accessible. A must-have.

MacCallum, R. C., Widaman, K. F., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*, 84-89.

* The go-to reference for sample size determination for EFA studies. Debunks many of the common heuristics about sample size determination (e.g., n:variable ratio).

Grice, J. W. (2001). Computing and evaluating factor scores. *Psychological Methods*, *6*, 430-450.

* An underappreciated reference on factor scores, including information for different methods of calculation, and criteria for evaluating the appropriateness of their use.

**For CFA/SEM**

Beaujean, A. A. (2014). *Latent variable modeling using R: A step-by-step guide.* New York, NY: Routledge.

* A great starting point if you’re looking to learn about doing CFA/SEM using the *lavaan*() package. Like Fabrigar and Wegener (2011), unusually comprehensive, while still being highly accessible. Would/will be my choice for teaching SEM to grad students.

Little, T. D. (2013). *Longitudinal Structural Equation Modeling*. New York, NY: Guilford Press.

* If you want to study latent variables over time, this is your resource. Also contains a very comprehensive and accessible introduction into general CFA/SEM matters, before focusing specifically on longitudinal models (panel, growth-curve, and p-technique).

Brown, T. A. (2015). *Confirmatory factor analysis for applied research* (2nd edition). New York, NY: Guilford Press.

* In my opinion, the best comprehensive book for CFA at the intermediate level. Get the second edition if you want to learn more about CFA in R (1st ed. does not have R content).

Hu, L., & Bentler, P. M. (1999). Cuttoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, *6*, 1-55.

* \*The\* reference for conventional cutoff values for fit indexes, including guidance on which to select, and which to avoid. Tough to imagine writing a CFA/SEM paper without referencing it (cited >36K times)

Rhemtulla, M., Brosseau-Liard, P. E., & Savalei, V. (2012). When can categorical variables be treated as continuous? A comparison of robust continuous and categorical SEM estimation methods under suboptimal conditions. *Psychological Methods*, *17*, 354-373.

* A recent article that provides helpful guidance for estimator selection in CFA/SEM, especially when dealing with non-normal indicators, and how many response options (e.g., a 5-point rating scale) are best for categorical vs. continuous estimators.

Little, T. D., Cunningham, W. A., Shahar, G., & Widaman, K. F. (2002). To parcel or not to parcel: Exploring the question, weighing the merits. *Structural Equation Modeling*, *9*, 151-173.

* The go-to reference for whenever you are considering parceling, as it describes times when it is appropriate, and when it is inappropriate. Also describes several potential parceling schemes, each with their own tradeoffs.

Little, T. D., Slegers, D. W., & Card, N. A. (2006). A non-arbitary method of identifying and scaling latent variables in SEM and MACS models. *Structural Equation Modeling*, *13*, 59-72.

* There actually is a third method of scale-setting: “effects coding”. It’s a bit more complicated, but offers some powerful advantages if you primary modeling focus is to analyze latent means. This reference has everything you need to know, should that be the case.

Finch, W. H., & French, B. F. (2015). *Latent variable modeling with R*. New York, NY: Routledge.

* Attempts to be the one-and-only reference you need for latent variable analysis. Frankly, I mind much of the coverage in this book lacking (I would rather Fabrigar & Wegener, 2011 for EFA, and Beaujean 2014, for CFA/SEM), but its chapters on IRT are actually quite good—even for users totally new to IRT.